## REMARKS

This application was filed with Claims 1-20. Claims 1, 5-7, 10, 14, 15, and 17 have been rejected. Claims 2-4, 8, 9, 11 and 16 have been objected to. Claims 12, 13, and 18-20 have been allowed. Claims 2-4, 8, 9, 11, 14 and 16 have been amended. Claim 21 has been added. Therefore, Claims 1-21 are pending in the Application. Reconsideration of the application based on the remaining claims as amended and arguments submitted below is respectfully requested.

## Claim Rejections - 35 U.S.C. § 102(b)

Claims 1, 5, 6, 7 and 10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Genung et al., U.S. Patent No. 5,758,514 (Genung)

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131 citing Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." Id citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Also, "[t]he elements must be arranged as required by the claim..." Id citing In re Bond, 910 F.2d 831 (Fed. Cir. 1990).

Applicant would like to respectfully point out that Genung dose not teach all features of Claim 1. For example, Claim 1 teaches at least one auxiliary refrigerant pump operatively connected to the refrigerant line and operative to pump

refrigerant fluid during a system closed-loop cycle. Every pump in Genung is used to circulate "[a] medium such as water, ethylene glycol, or the like...through a separate conduit" in order to transfer heat to the refrigerant. See column 8, lines 12-31 and column 15, lines 17-23. The pumps in Genung are not operatively connected to the refrigerant line and do not pump refrigerant fluid. As such, Claim 1 is patentable.

In regard to Claims 5, 6, 7 and 10, Claims 5, 6, 7 and 10 are dependent on Claim 1, and include features not anticipated by Genung. As such, Applicant respectfully requests the rejections of Claims 1, 5, 6, 7 and 10 under 35 U.S.C. § 102(b) be withdrawn.

## Claim Rejections - 35 U.S.C. § 103

Claims 14 and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Genung in view of Wiggs et al, U.S. Patent No. 5,816,314 (Wiggs '314). Claim 17 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Genung in view of Wiggs '314 and in further view of Singleton, Jr. et al, U.S. Patent No. 4,448,238 (Singleton).

As noted by the substantial authority covered in MPEP §2145, §2143.01, and the decisions of the Federal Circuit, it is improper to combine references without a teaching, motivation, or suggestion for combining the references. This teaching, motivation, or suggestion must be found in either the prior art or known generally by those skilled in the art. "Obviousness can only be established by combining or

modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found in the references themselves or in the knowledge generally available to one of ordinary skill in the art." MPEP §2143.01 (citing In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) and In re Fine, 837 F.2d 1071 (Fed. Cir. 1988)). Further "[t]he level of skill in the art cannot be relied upon to provide the suggestion to combine references." MPEP §2143.01 (citing Al-Site Corp. v. VSI Int'l Inc., 174 F.3d 1308, 50 USPQ2d 1161(Fed. Cir. 1999)). Also, as noted in MPEP §2142, §2143, and the decisions of the Federal Circuit, it is improper to use the present application as a means of suggestion for combining the prior art references.

Nowhere does the Office Action particularly identify any suggestion, teaching, or motivation to combine the prior art references. Also, the Office Action does not make specific findings concerning the identification of the relevant art, the knowledge generally available to one of ordinary skill in the art, the nature of the problem to be solved, or other findings to support a proper obviousness analysis. See *In re Dembiczak* 50 U.S.P.Q. 1614, 1618 (CAFC 1999).

Also," [t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03 (citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)). "All words in a claim must be considered in judging the patentability of that claim against the prior art." MPEP §2143.03 (citing In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)).

In regard to Claim 14, Claim 14 teaches that the in-ground heat exchanger is positioned in a deep well. Wiggs '314 does not disclose a deep well because Wiggs '314 only mentions surface penetrations of less than twenty feet. As such, the combination of Genung and Wiggs do not teach the features of Claim 14.

Additionally, Claim 14 is dependent on patentably distinct Claim 1. Claims 15 and 17 are dependent on Claim 14. Thus, Applicant respectfully requests that the rejection of Claims 14, 15, and 17 under 35 U.S.C. §103 be withdrawn.

## Allowable Subject Matter

The Examiner objected to Claims 2-4, 8, 9, 11 and 16 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 2-4, 8, 9, 11 and 16 have been rewritten as requested. Multiple dependent Claim 3 has been rewritten as independent Claims 3 and 21. As such, Claims 2-4, 8, 9, 11, 16, and 21 should be in allowable form.

Claims 12, 13, and 18-20 are allowed.

Applicant has commented on some of the distinctions between the cited references and the claims to facilitate a better understanding of the present invention. This discussion is not exhaustive of the facets of the invention, and Applicant hereby reserves the right to present additional distinctions as appropriate. Furthermore, while these remarks may employ shortened, more specific, or variant descriptions of

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some of the claim language, Applicant respectfully notes that these remarks are not to be used to create implied limitations in the claims and only the actual wording of the claims should be considered against these references.

The Commissioner is authorized to charge any deficiency or credit any overpayment associated with the filing of this Response to Deposit Account 23-0035.

Respectfully submitted,

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